

## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/524,919  
Source: PCT  
Date Processed by STIC: 2-26-05

# ***ENTERED***



PCT

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/524,919

DATE: 02/26/2005

TIME: 08:07:10

Input Set : A:\US\_A35045\_SeqList.txt

Output Set: N:\CRF4\02262005\J524919.raw

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3 <110> APPLICANT: Giaccia, Amato J.
4      Yun, Zhong
6 <120> TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR REGULATING
7      ADIPOGENESIS
9 <130> FILE REFERENCE: A35045
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/524,919
C--> 11 <141> CURRENT FILING DATE: 2005-02-17
11 <150> PRIOR APPLICATION NUMBER: PCT/US03/06360
12 <151> PRIOR FILING DATE: 2003-02-28
14 <150> PRIOR APPLICATION NUMBER: US 60/360,689
15 <151> PRIOR FILING DATE: 2002-02-28
17 <160> NUMBER OF SEQ ID NOS: 7
19 <170> SOFTWARE: FastSEQ for Windows Version 4.0
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 2922
23 <212> TYPE: DNA
24 <213> ORGANISM: Human
26 <220> FEATURE:
27 <221> NAME/KEY: gene
28 <222> LOCATION: (1)...(2922)
29 <223> OTHER INFORMATION: BHLHB2 (DEC1)
31 <221> NAME/KEY: variation
32 <222> LOCATION: (27)...(27)
33 <223> OTHER INFORMATION: C or T
W--> 35 <221> variation
36 <222> LOCATION: (196)...(196)
37 <223> OTHER INFORMATION: C or T
W--> 39 <221> CDS
W--> 40 <222> LOCATION: (197)...(145)
41 <223> OTHER INFORMATION: BHLHB2
W--> 43 <221> variation
W--> 44 <222> LOCATION: (829)...(829)
45 <223> OTHER INFORMATION: C or T
W--> 47 <221> variation
W--> 48 <222> LOCATION: (2504)...(2504)
49 <223> OTHER INFORMATION: A or T
W--> 51 <221> variation
W--> 52 <222> LOCATION: (2732)...(2732)
53 <223> OTHER INFORMATION: A or C
W--> 55 <221> variation
W--> 56 <222> LOCATION: (2770)...(2770)
57 <223> OTHER INFORMATION: A or G
W--> 59 <221> variation

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W--> 60 <222> LOCATION: (2891)...(2891)
      61 <223> OTHER INFORMATION: A or T
W--> 63 <221> polyA_signal
W--> 64 <222> LOCATION: (2896)...(2901)
W--> 66 <221> polyA_site
W--> 67 <222> LOCATION: (2922)...(2922)
      69 <308> DATABASE ACCESSION NO: NM_003670
      70 <309> DATABASE ENTRY DATE: 1999-03-19
W--> 72 <400> 1
      73 ggacaccggg ccatgcacgc ccccaactga agctgcatct caaagccgaa gattccagca 60
      74 gcccagggga tttcaaagag ctacagactca gaggaacatc tgcggagaga ccccgaagc 120
      75 cctctccagg gcagtcctca tccagacgct ccgctagtgc agacaggagc gcgcagtggc 180
      76 cccggctcgc cgcgccatgg agcggatccc cagcgcgcaa ccaccccccg cctgcctgcc 240
      77 caaagcaccg ggactggagc acggagacct accagggatg taccctgccc acatgtacca 300
      78 agtgtacaa g tcaagacggg gaataaagcg gagcaggagc agcaaggaga cctacaaatt 360
      79 gccgcaccgg ctcatcgaga aaaagagacg tgaccggatt aacgagtgc tgcgccagct 420
      80 gaaggatctc ctaccggaac atctcaaact tacaactttg gggtcacttg aaaaagcagt 480
      81 gggttcttgaa cttaccttga agcatgtgaa agcactaaca aacctaatg atcagcagca 540
      82 gcagaaaatc attgccctgc agagtgggtt acaagctggg gagctgtcag ggagaaatgt 600
      83 cgaaacaggc caagagatgt tctgtcagg tttccagaca tgtgcccggg aggtgcttca 660
      84 gtatctggcc aagcacgaga acactcggga cctgaagtct tcgcagcttg taccacacct 720
      85 ccaccgggtg gtctcggagc tgctgcaggg tgggtacctc aggaagccat cagaccacgc 780
      86 tcccaaagtg atggacttca aggaaaaacc cagctctccg gccaaagggt cgggaagggtcc 840
      87 tgggaaaaac tgcgtgccag tcatccagcg gactttcgct cactcgagtg gggagcagag 900
      88 cggcagcgac acggacacag acagtggcta tggaggagaa tcggagaagg gcgacttgcg 960
      89 cagtgcagcag ccgtgcttca aaagtgaaca cggacgcagg ttcacgatgg gagaaaggat 1020
      90 cggcgcaatt aagcaagagt ccgaagaacc cccacacaaa aagaaccgga tgcagctttc 1080
      91 ggatgatgaa ggccatttca ctagcagtga cctgatcagc tccccgttcc tggggccaca 1140
      92 cccacaccag cctcctttct gectgccctt ctacctgatc ccaccttcag cgactgccta 1200
      93 cctgccccatg ctggagaagt gctggtatcc cacctcagtg ccagtgctat acccaggcct 1260
      94 caacgcctct gccgcagccc tctctagctt catgaacca gacaagatct cggctccctt 1320
      95 gctcagcccc cagagactcc cttctccctt gccagctcat ccgtccgtcg actcttctgt 1380
      96 cttgtctcaa gctctgaagc caatccccc tttaaactta gaaaccaaag actaaactct 1440
      97 ctaggggatc ctgctgcttt gctttccttc ctgcgtactt cctaaaaagc aacaaaaaag 1500
      98 tttttgtgaa tgctgcaaga ttgttgcat gtgtatactg agataatctg aggcattggag 1560
      99 agcagattca ggggtgtgtg gtgtgtgtgt gtgtgtgtgt gtatgtgcgt gtgcgtgcac 1620
      100 atgtgtgcct gcgtgttggt ataggacttt aaagctcctt ttggcatagg gaagtcacga 1680
      101 aggattgctt gacatcagga gacttggggg ggattgtagc agacgtctgg gcttttcccc 1740
      102 acccagagaa tagccccctt cgatacacat cagctggatt ttcaaaagct tcaaagtctt 1800
      103 ggtctgtgag tcaactctca gtttgggagc tgggtctgtg gctttgatca gaaggtagct 1860
      104 tcaaaagagg gctttccagg gctcagctcc caaccagctg ttaggacccc acccttttgc 1920
      105 ctttattgtc gacgtgactc accagacgtc ggggagagag agcagtcaga ccgagctttc 1980
      106 tgctaacatg gggaggtagc aggcactggc atagcacggg agtgggtttg ggagggtttc 2040
      107 gcaggctctg tccccacccc tgctcggaa gaataaagag aatgtagtgc cctactcagg 2100
      108 ctttcgtagt gattagctta ctaaggaact gaaaatgggc cccttgtagc agctgagctg 2160
      109 ccccgagggg agggaggagt tccctgggct tctggcacct gtttctaggc ctaaccatta 2220
      110 gtacttactg tgcagggaac caaaccaagg tctgagaaat gcggacaccc cgagcgagca 2280
      111 ccccaaagtg cacaagctg agtaaaaagc tgcccccttc aaacagaact agactcagtt 2340
      112 ttcaattcca tctaaaact ccttttaacc aagcttagct tctcaaaggc ctaaccaagg 2400

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113 cttggcaccg ccagatcctt tctgtaggct aattcctctt gcccaacggc atatggagtg 2460
114 tccttattgc taaaaaggat tccgtctcct tcaaagaagt tttatttttg gtccagagta 2520
115 cttgttttcc cgatgtgtcc agccagctcc gcagcagctt ttcaagatgc actatgcctg 2580
116 attgctgata gtgttttaac tttttctttt cctgttttta ttttggtatt aagtcgttgc 2640
117 ctttatttgt aaagctgtta taaatatata ttatataaat atattaaaaa ggaaaatgtt 2700
118 tcagatgttt atttgtataa ttacttgatt cacacagtga gaaaaaatga atgtattcct 2760
119 gtttttgaag agaagaataa tttttttttc tctagggaga ggtacagtgt ttatattttg 2820
120 gagccttcct gaaggtgtaa aattgtaaat atttttatct atgagtaaat gttaagtagt 2880
121 tgttttaaaa tacttaataa aataattctt ttcctgtgga ag 2922
123 <210> SEQ ID NO: 2
124 <211> LENGTH: 412
125 <212> TYPE: PRT
126 <213> ORGANISM: Human
128 <308> DATABASE ACCESSION NO: NP_003661.1
129 <309> DATABASE ENTRY DATE: 1999-03-19
131 <400> SEQUENCE: 2
132 Met Glu Arg Ile Pro Ser Ala Gln Pro Pro Pro Ala Cys Leu Pro Lys
133 1 5 10 15
134 Ala Pro Gly Leu Glu His Gly Asp Leu Pro Gly Met Tyr Pro Ala His
135 20 25 30
136 Met Tyr Gln Val Tyr Lys Ser Arg Arg Gly Ile Lys Arg Ser Glu Asp
137 35 40 45
138 Ser Lys Glu Thr Tyr Lys Leu Pro His Arg Leu Ile Glu Lys Lys Arg
139 50 55 60
140 Arg Asp Arg Ile Asn Glu Cys Ile Ala Gln Leu Lys Asp Leu Leu Pro
141 65 70 75 80
142 Glu His Leu Lys Leu Thr Thr Leu Gly His Leu Glu Lys Ala Val Val
143 85 90 95
144 Leu Glu Leu Thr Leu Lys His Val Lys Ala Leu Thr Asn Leu Ile Asp
145 100 105 110
146 Gln Gln Gln Gln Lys Ile Ile Ala Leu Gln Ser Gly Leu Gln Ala Gly
147 115 120 125
148 Glu Leu Ser Gly Arg Asn Val Glu Thr Gly Gln Glu Met Phe Cys Ser
149 130 135 140
150 Gly Phe Gln Thr Cys Ala Arg Glu Val Leu Gln Tyr Leu Ala Lys His
151 145 150 155 160
152 Glu Asn Thr Arg Asp Leu Lys Ser Ser Gln Leu Val Thr His Leu His
153 165 170 175
154 Arg Val Val Ser Glu Leu Leu Gln Gly Gly Thr Ser Arg Lys Pro Ser
155 180 185 190
156 Asp Pro Ala Pro Lys Val Met Asp Phe Lys Glu Lys Pro Ser Ser Pro
157 195 200 205
158 Ala Lys Gly Ser Glu Gly Pro Gly Lys Asn Cys Val Pro Val Ile Gln
159 210 215 220
160 Arg Thr Phe Ala His Ser Ser Gly Glu Gln Ser Gly Ser Asp Thr Asp
161 225 230 235 240
162 Thr Asp Ser Gly Tyr Gly Gly Glu Ser Glu Lys Gly Asp Leu Arg Ser
163 245 250 255
164 Glu Gln Pro Cys Phe Lys Ser Asp His Gly Arg Arg Phe Thr Met Gly

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Input Set : A:\US\_A35045\_SeqList.txt

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165          260          265          270
166 Glu Arg Ile Gly Ala Ile Lys Gln Glu Ser Glu Glu Pro Pro Thr Lys
167          275          280          285
168 Lys Asn Arg Met Gln Leu Ser Asp Asp Glu Gly His Phe Thr Ser Ser
169          290          295          300
170 Asp Leu Ile Ser Ser Pro Phe Leu Gly Pro His Pro His Gln Pro Pro
171 305          310          315          320
172 Phe Cys Leu Pro Phe Tyr Leu Ile Pro Pro Ser Ala Thr Ala Tyr Leu
173          325          330          335
174 Pro Met Leu Glu Lys Cys Trp Tyr Pro Thr Ser Val Pro Val Leu Tyr
175          340          345          350
176 Pro Gly Leu Asn Ala Ser Ala Ala Leu Ser Ser Phe Met Asn Pro
177          355          360          365
178 Asp Lys Ile Ser Ala Pro Leu Leu Met Pro Gln Arg Leu Pro Ser Pro
179          370          375          380
180 Leu Pro Ala His Pro Ser Val Asp Ser Ser Val Leu Leu Gln Ala Leu
181 385          390          395          400
182 Lys Pro Ile Pro Pro Leu Asn Leu Glu Thr Lys Asp
183          405          410

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186 &lt;210&gt; SEQ ID NO: 3

187 &lt;211&gt; LENGTH: 2909

188 &lt;212&gt; TYPE: DNA

189 &lt;213&gt; ORGANISM: Mus musculus

191 &lt;220&gt; FEATURE:

192 &lt;221&gt; NAME/KEY: gene

193 &lt;222&gt; LOCATION: (1)...(2909)

194 &lt;223&gt; OTHER INFORMATION: BHLHB2 (Stral3;CR8)

196 &lt;221&gt; NAME/KEY: CDS

197 &lt;222&gt; LOCATION: (217)...(1452)

198 &lt;223&gt; OTHER INFORMATION: BHLHB2 (eip1; E47 interaction protein)

200 &lt;308&gt; DATABASE ACCESSION NO: NM\_011498

201 &lt;309&gt; DATABASE ENTRY DATE: 2000-01-25

W--&gt; 203 &lt;400&gt; 3

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204 gccagaagcc gtgggggacac cgggccatgc acgcccccaa ctgaagcgac acctcaaagc 60
205 cgctgctcct ggcattcccag cgcattgcaa ggaagctcag gctagctcat aggaacatac 120
206 ctcttgagac cctcggtacc tcccttccag ggcagccctt tctcagactc tactaagtgc 180
207 agacaggagc gcacagtggc cctgctcgc cgcattcatg aacggatccc cagcgcgcaa 240
208 ccacctccta cctgcctgcc caaagctcca gggctggagc acggagacct gtcagggatg 300
209 gattttgccc acatgtacca agtgtacaag tccaggcggg gaataaaacg gagcgaagac 360
210 agcaaggaaa cttacaaact gccgcaccgg ctgattgaga aaaagagacg tgaccggatt 420
211 aacgagtgca ttgccagct gaaggatctc ctaccggaac atctcaaact tactactttg 480
212 ggtcacttgg aaaaagcagt ggttctggag cttacgttga agcacgtgaa agcattgaca 540
213 aatctaattg atcagcagca gcagaaaatc attgccctgc agagcgggtt acaagctggt 600
214 gatttgtcgg gaagaaatct cgaggcaggg caagaaatgt tctgctcagg tttccagact 660
215 tgtgcccgtg aggtacttca gtacctggcg aagcatgaga aactcggga cctgaaatct 720
216 tcccagctcg tcatcatct ccacgtgtg gtctcggagc tgctgcaggg tgggtgcttcc 780
217 aggaaccatc tggactcggc tcccaaagcc gtggacttga aagagaagcc cagcttccta 840
218 gccaagggat cagaaggccc agggaaaaac tgtgtgccag tcatccagcg gacttttgct 900
219 ccctcgggtg gggagcagag cggcagtgc acggacacag acagtggcta tggaggtgaa 960

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TIME: 08:07:10

Input Set : A:\US\_A35045\_SeqList.txt

Output Set: N:\CRF4\02262005\J524919.raw

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220 ttggagaaag gggacttgcg cagtgaacag ccgtacttca aaagcgacca tggacgcagg 1020
221 ttgcgcgtgg gagaacgtgt cagcacaatt aagcaagaat ccgaagagcc cccacacaaa 1080
222 aagagccgaa tgcagctctc agaagaggaa ggccacttcg cgggcagtga tctgatgggt 1140
223 tccccatttc ttggggccaca cccacatcag cctccttttt gccttccctt ctatctcatc 1200
224 ccaccatcgg cactgccta cctgcctatg ctggagaaat gctggtagcc cactctgtg 1260
225 ccagtgttat acccaggcct caacacctca gctgcagccc tctccagctt catgaaccca 1320
226 gacaagatac cgactccctt gcttctgccc cagagactcc cttctccttt ggcacattcg 1380
227 tcccttgact cttcggcctt gctccaggct ttgaagcaga tccctccttt aaacttagaa 1440
228 accaaagact aaactctgga gggatctcct gctgccttgc tttctttcct ccctaattcc 1500
229 aaaaaccacg aaggtttccc tgagtgcaga gagatcagcc caccctgcag acccacagag 1560
230 aagattcaga gtgtgtgtga gagtgagtga gtgtgcgtgc gtgcgtgctt gtatgtatgt 1620
231 ttgtatatgt aggacaataa gttccttctg acacaaggga gacacgagaa ggatagcctg 1680
232 acatcagatg acagactgga ggactgtagc acatctctgg gcgtttccct acccagagaa 1740
233 gagccccccc cccctttgat acaaatcggg ttgattttca tatgcttcaa aggcttgatc 1800
234 tgtgagtcac tctccagttt gggacatggg tctgtctgtg gctttgagaa aaggtacttt 1860
235 caaaagaggg ctttccagag cacagctcac agccagctgt taggaccca ccttctccc 1920
236 tttattgtgg aggtgactca cagcagactg acagtggcca ggctgagctt tctgctaagg 1980
237 tgggtgaggtc gccaaactg gcatgtctcg gtatgtggtt gggcaaattt ctgcagggtc 2040
238 cttcccccca acccgtctc tgatgaataa agaccatgag tggagtccct taactcaggc 2100
239 ttttgtgagt agtttactaa ggaactgaaa atgggtcccct ttgtccaagc tgagctgcta 2160
240 gggaatcaag gtgaactgga cccgtcctca ggctctggc acctgtttct agctctcact 2220
241 tctacggcat gctgtccaag gaaccaaagg aggtctctcg agatgcccc aaacgtcca 2280
242 aagtacacag agctaagtaa tcaattgcta cacttattgc acagctagac acggatttca 2340
243 agtgatctct aaagctttga accaagctta gcttctcaaa ggcttagcag agctttggca 2400
244 ccccaagatc ctttctgtag gctatttccct cttgcccagc agcggatgga gcgtccttgc 2460
245 taaaaagggg tccatctcct ttaaggacgt tttatttttg atccagagtc cttgtttcct 2520
246 tgacttgctc caccagccct gcaccagctt tccaaatgca ctctgcttgt gttgaaattc 2580
247 tcccattttt atttgggcat aaaagttgtt gcctttattt gtaaagctgt tataaatata 2640
248 tattatataa atatatgaca aaggaaaatg ttccagatgt ctatttgtat aattacttga 2700
249 tctacacagt gaggaaaaaa atgaatgtat ttctgttttt gaagagaata atttttttct 2760
250 ctaggagag gcgaggttac agtggttata ttttggaacc ttctgaagg tgtgaaattg 2820
251 taaatatttt tatctaagta aatgttaagc agttgtttta aaaatactta ataaaataag 2880
252 cttttttcct gtggaagcga cagtatcgg 2909

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254 &lt;210&gt; SEQ ID NO: 4

255 &lt;211&gt; LENGTH: 411

256 &lt;212&gt; TYPE: PRT

257 &lt;213&gt; ORGANISM: Mus musculus

259 &lt;308&gt; DATABASE ACCESSION NO: NP\_035628.1

260 &lt;309&gt; DATABASE ENTRY DATE: 2000-01-25

262 &lt;400&gt; SEQUENCE: 4

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263 Met Glu Arg Ile Pro Ser Ala Gln Pro Pro Pro Thr Cys Leu Pro Lys
264 1 5 10 15
265 Ala Pro Gly Leu Glu His Gly Asp Leu Ser Gly Met Asp Phe Ala His
266 20 25 30
267 Met Tyr Gln Val Tyr Lys Ser Arg Arg Gly Ile Lys Arg Ser Glu Asp
268 35 40 45
269 Ser Lys Glu Thr Tyr Lys Leu Pro His Arg Leu Ile Glu Lys Lys Arg
270 50 55 60
271 Arg Asp Arg Ile Asn Glu Cys Ile Ala Gln Leu Lys Asp Leu Leu Pro

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## VERIFICATION SUMMARY

DATE: 02/26/2005

PATENT APPLICATION: US/10/524,919

TIME: 08:07:11

Input Set : A:\US\_A35045\_SeqList.txt

Output Set: N:\CRF4\02262005\J524919.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No  
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:35 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1  
L:39 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1  
L:40 M:351 W: Sequence data Name/Key Feature Out-of-Range, SEQ ID#:1, CDS LOCATION: (197)...  
(145)  
L:43 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1  
L:47 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1  
L:51 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1  
L:55 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1  
L:59 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1  
L:63 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1  
L:66 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1  
L:72 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1  
L:203 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:3